

admissible. In *M. Hectori*, as figured by Professor Flower, the premaxillary foramen lies in a groove, which is considerably prolonged anteriorly. In our specimen the groove extends behind but not in front of the foramen. The premaxillæ themselves begin to assume a perpendicular position immediately in front of the foramen. In these respects the Bering Island specimen shows some affinity to *M. Grayi*. The lateral expansion of the proximal ends of the premaxillæ is relatively less in *M. Hectori*, much less than in the other species. The extension of these bones on the horizontal surface of the maxilla opposite the nares is much less than in *M. Hectori*. The palatine bones are well developed and extend in front of the pterygoids on the "palate." The vomer is visible in the middle third of the lower surface of the beak, as in *M. Hectori*. The exposed portion is 66 millimeters in length.

Viewed from the side, the contour of the occipital in the Bering Island specimen is seen to be very decidedly less convex than in *M. Hectori*, as figured by Professor Flower. The occipital would appear to be flatter than in any of the known species of the genus; superiorly it is concave. Though the sides of the beak are much broken, it is evident that there is no basi-rostral groove in this species.

A section of the beak at the middle has an outline quite different from any of those figured by Professor Flower (*l. c.*, p. 422). Omitting the intermaxillæ, which stand vertically, the outline of the remainder of the section is approximately a circle.

As this species appears to be distinct from any hitherto described, I propose for it the name of *Mesoplodon Stejnegeri*, in honor of my esteemed friend, the eminent naturalist, Dr. Leonhard Stejneger.

*Diagnosis of Mesoplodon Stejnegeri*, sp. nov.

External form unknown.

*Skull*.—Brain-case little less than half the length of the skull. No basi-rostral groove. Premaxillary foramen posterior to the maxillary foramen. Premaxillary bones not grooved in front of the foramen, assuming a nearly vertical position anterior to the middle of the beak; not greatly expanded laterally back of the nares. Occipital bone plane above the condyles, concave at the vertex. Exposed portion of vomer less than one-fifth the length of the beak.

Habitat: Bering Sea.

WASHINGTON, September 25, 1885.

A NOTE UPON THE HYPEROODON SEMIJUNCTUS OF COPE.

By FREDERICK W. TRUE.

The skeleton upon which Professor Cope based his *Hyperoodon semijunctus* having recently been transferred, through the courtesy of Dr. G. E. Manigault, curator of the Charleston College Museum, to the national collection, I have taken pains to examine it with the special view of determining if possible the identity of the species.

The specimen is very young. In the skull the basi-sphenoidal suture is open and the outlines of the elements of the occipital bone are still faintly marked. All the bones are very brittle and many are badly broken. Phalanges and pelvic and hyoid bones are wanting.

I find no flaw in the brief original description by Professor Cope. Of the 10 pair of ribs, however, that belonging to the right side has been lost. The total number of vertebræ is 47, but the last three are restorations in wood. About that number are needed, however, to properly complete the backbone.

The specimen is unquestionably a *Ziphius*, and the opinions of Professors Flower and Van Beneden in regard to it are, therefore, sustained. Whether it is distinct from *Z. cavirostris* or not I am unable to determine. My observation leads me to believe that in this genus the changes in the conformation of the skull in front of the anterior nares, as a consequence of age, rival those affecting the maxillary crests in *Hyperoodon*. There appears to be a progressive excavation or absorption of the bones lying in the median line of the upper surface of the beak, accompanied by introversion of the premaxillæ and a rounding off of the extremity of the beak. Until it has been determined how far these changes are due to age it would seem impossible to decide upon the real number of existing species. It is perhaps desirable that the Charleston specimen should for the present be known as *Ziphius semijunctus*.

In general form and proportion the skull approaches most closely the *Z. Gervaisii* of Duvernoy (fig. in Van Beneden and Gervais, Osteog. Cétacés, pl. 21, figs. 1-6). It is least like the *Z. indicus* of Van Beneden. Its proportions are as follows:

*Measurements of the skull of Ziphius semijunctus* (Cope).

[No. 21,975.—Type —.]

Measurements.	Milli- meters.	Measurements.	Milli- meters.
Total length .....	797	Breadth between hinder margins of tem- poral fossæ .....	244
Length of beak .....	466	Length of temporal fossa .....	124
Breadth of beak at base of notches .....	252	Depth of temporal fossa .....	72
Breadth of beak at its middle .....	82	Total length of mandible .....	678
Height of beak at its middle .....	54	Length of symphysis of mandible .....	
Breadth of premaxillæ at same point .....	40	Length of tooth-row of mandible .....	
Greatest breadth between outer margins of premaxillæ proximally .....	147	Depth between angle and coronoid pro- cess .....	134
Length of tooth-line .....		Total length of mandibular tooth .....	46
Last tooth to base of maxillary notch .....		Greatest diameter of mandibular tooth .....	11
Tip of beak to anterior margin superior nasal opening .....		Vertex to lower margin occipital con- dyles .....	280
Tip of beak to end of crest of pterygoid in median line .....	620	Horizontal length of nasals .....	95
Breadth between orbital processes of frontal .....	395	Greatest width of both nasals .....	57

WASHINGTON, September 25, 1885.